

HAMILTON (J. B.)

SURGICAL MEMORANDA.

-
1. *Abdomino-Inguinal Supporter.*
 2. *Treatment of Open Fractures.*
 3. *Case of Cerebral Clot, with Blindness—
Recovery.*
 4. *Case of Hypertrophy of Mammary Glands.*
 5. *Normal Situation of Gall Bladder.*
-

BY JOHN B. HAMILTON, M.D., LL.D.

PROFESSOR PRINCIPLES OF SURGERY AND CLINICAL SURGERY, RUSH
MEDICAL COLLEGE, CHICAGO; PROFESSOR OF SURGERY, CHICAGO
POLICLINIC; SURGEON, FORMERLY SUPERVISING SURGEON-
GENERAL U. S. MARINE-HOSPITAL SERVICE, ETC.

REPRINTED FROM THE
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

CHICAGO:
AMERICAN MEDICAL ASSOCIATION PRESS.
1895.



SURGICAL MEMORANDA.

1. *Abdomino-Inguinal Supporter.*
 2. *Treatment of Open Fractures.*
 3. *Case of Cerebral Clot, with Blindness—
Recovery.*
 4. *Case of Hypertrophy of Mammary Glands.*
 5. *Normal Situation of Gall Bladder.*
-

BY JOHN B. HAMILTON, M.D., LL.D.

PROFESSOR PRINCIPLES OF SURGERY AND CLINICAL SURGERY, RUSH
MEDICAL COLLEGE, CHICAGO; PROFESSOR OF SURGERY, CHICAGO
POLICLINIC; SURGEON, FORMERLY SUPERVISING SURGEON-
GENERAL U. S. MARINE-HOSPITAL SERVICE, ETC.

REPRINTED FROM THE
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

CHICAGO:
AMERICAN MEDICAL ASSOCIATION PRESS.
1895.



AN ABDOMINO-INGUINAL SUPPORTER. FOR USE AFTER HERNIOTOMY.¹

"The patient should not be allowed to get up until three weeks have elapsed after the operation and then only if the wound is sound. The question of a supporting bandage or a truss will then have to be considered."—Treves, "Manual of Operative Surgery," 1892, Vol. II, page 530.

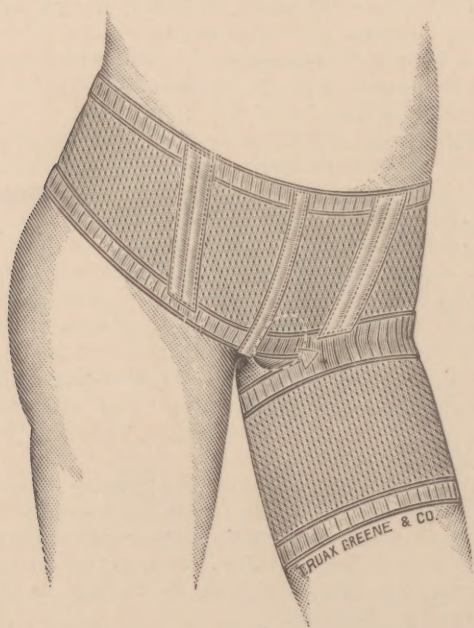
"A spring truss should not be worn after the operation as its pressure tends to cause premature absorption of the lymph, but the abdominal wall requires a certain amount of support for some months. In infants this may be managed with a skein of Berlin wool as already described; but for children and adults the form of appliance known as Harrison's truss answers best. It consists of a well fitting pelvic band and two short thigh pieces made of linen; like a pair of very short drawers fitting tightly and fastened with lacers; a perineal band prevents its ascending, and may in addition be furnished with a scrotal bag and with braces passing over the shoulders."—Moullin, "Surgery," 2d. Ed. by Hamilton, 1894, p. 904.

"In all cases during more than six months, those who are subjected to the radical cure should be watched with care and on the first menace of the reappearance of the hernia a bandage must be prescribed, so as not to lose all the benefits of the operation."—Berger, in "*Traité de Chirurgie*," Duplay et Reclus, Tome VI.

My experience, now quite extensive, in operations for the radical cure of hernia, has convinced me of the general correctness of the view, that some kind of support is always indicated after herniotomy. The direction given in some of the recent writings on the subject, to cause the patient to wear a light spring

¹ JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION April 28, 1894.

truss for some weeks (Lucas-Championiere), is only less mischievous than the practice of discharging such patients without any support. In casting about for some apparatus that would approach the shape of the human hand in supporting the new cicatricial tissue closing the inguinal ring, I thought a thin piece of flat

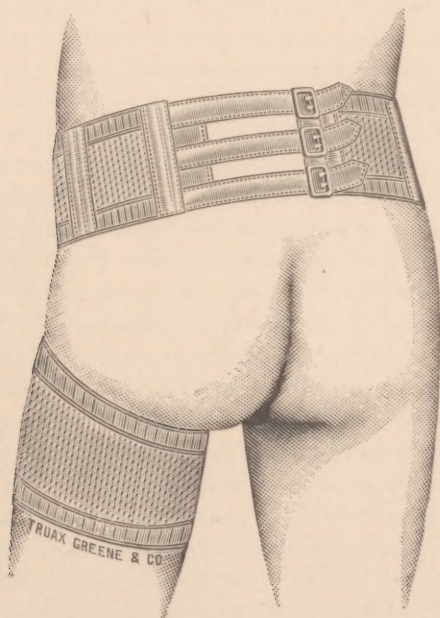


sole leather slightly hollowed like the palm of the hand covered with chamois skin, making uniform pressure on the abdomen, would fulfil the indications. To retain the broad pad in place I caused it to be sewed to a supporter made of silk elastic, with a thigh piece.

The cut shows the supporter as made for me by Truax, Greene & Co.

I have tried it on three cases, and with satisfaction to the patient in all.

With this bandage the pendulous abdomen may be well sustained, and the thigh piece keeps the pad in position. The bandage should be woven in a single piece, and the pad carefully fitted to the patient



before permanent fastening. Care should be taken that the thigh piece is not too tight. The straps should be snugly buckled at the back. Patients wearing these supporters have been instructed to remove them at night.

In cases of ventral or double hernia a double thigh piece should be worn.

THE TREATMENT OF OPEN FRACTURES.¹

If aseptic surgery had been practiced only in the treatment of open (compound) fractures, it would have accomplished much for humanity. It is safe to say that there are not one-half as many amputations performed since the commencement of the present treatment as formerly. Lives have been saved that otherwise would have been sacrificed, and useful limbs are now seen where a few years ago, a wooden substitute was worn as a perpetual reminder of the shortcomings of the surgical art. The aseptic treatment of an open fracture requires first the thorough cleansing of the limb and the wound. The limb should be shaved and washed clean. Irrigation with boiled water is the best means of securing cleanliness of the wound. If there should be venous oozing, it should be stanching with hot water, or irrigated with a bichlorid of mercury solution 1 to 4,000. The styptic effect of this solution is at once seen in the bleaching and drying effect produced. Any spurting vessel should be tied with carefully sterilized catgut. The next step is to secure accurate coaptation of the fragments; sharp splinters (*spiculæ*) should be removed, but broad fragments, even when considerably comminuted, should be readjusted. The elevator and the heavy bone forceps will be frequently needed to bring the fragments into position. It is well known that the principal causes of non-union, outside

¹ JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, July 21, 1894.

of constitutional causes, are; 1, want of apposition; 2, interposition of muscles; 3, excessive motion. Every care should be taken therefore to avoid these causes of non-union.

Direct fixation of the fragments is one of the most important indications. This may be accomplished by periosteal suture or bony suture. I have many times secured good union in bones of the foot, for example, by the periosteal suturing of the fragments. Chromicized catgut or whale tendon should be used, and a sufficient number of stitches taken to bring the fragments together. In case the obliquity is such the fragments can not be brought together by periosteal suturing, then the osseous suture may be made; after trying many expedients, and experimenting with many kinds of suture, I have reverted to silver wire as being that best adapted to the work. These sutures in some soft bones may be passed obliquely through with a stout needle, but generally a small drill hole must be made to enable the passing of the wire. The wires must after twisting, be left long and project from the wound so as to facilitate easy removal.

I have had no experience with the use of the bone dowel plug placed in the medullary canal to secure fixation. It has seemed to me so liable to be septic, and there must be so many practical difficulties in the way of final removal, as to make it a dangerous appliance.

In five cases I have used the bone ring introduced to the notice of the profession by Professor Senn. In every case there was suppuration, and I have abandoned it, until such time as we shall be enabled to sterilize the ring. It is yet so far from perfection in that regard, as to make it almost certain that the

wound will become infected. The principle may be yet found useful by the invention of some different material. The bone ring (or thimble) has one advantage, that is the great amount of exudate (forming callus) which is excited by the presence of the ring. So pronounced is this effect, that in cases of ununited fracture where there is no attempt at the formation of callus, the ring may be used to advantage notwithstanding its general lack of sterilization.

The condition of the soft parts must next be looked to. Indeed it is a matter which is scarcely secondary to the proper treatment of the fractured bone. Wounded tendons, torn muscular structures and lacerated nerves should be sutured according to the rules laid down for the respective tissue involved. Stout chromicized catgut will be found useful for tendons, and fine flexible catgut for nerves. In case the distal and proximal ends of a nerve or tendon can not be brought together, they may be sewed to the nearest adjoining nerve or tendon. All this takes time, but it will be well spent. When the wound is cleaned the bones are brought together, and the soft structures thus attended to, then irrigation is again practiced and the external wound closed by sutures of silk-worm gut. Extension is usually not necessary if the fragments have been brought into perfect apposition, nor is there much difficulty in retaining them. External support should be secured by a plaster-of-Paris bandage, and when necessary a fenestra cut opposite the wound.

In complying with the wishes of our distinguished chairman, to keep within the ten minute line, it will be seen that I have chosen rather to support the

existing practice, than to compile the literature of the subject, and if more attention shall be directed to methods of suture of the soft parts. in addition to bone fixation, the paper will have served its purpose.

A CASE OF CEREBRAL CLOT; LOSS OF VISION FOLLOWING INJURY; TREPHINING; RECOVERY.¹

In November, 1893, Dr. Julia Holmes Smith, of Chicago, brought a patient to my service at the Chicago Policlinic with the following history:

Sister Adele, of the Benedictine order, aged 20, strong and healthy, was injured in Canon City, Colorado, June 18, 1893. At the time of injury was on a step ladder unscrewing one of the fastenings of a chandelier in the Academy St. Scholastica. A staple or hook fell, striking her on the top of

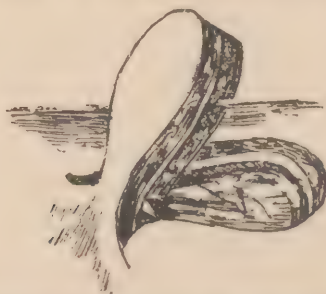


Fig. 1.—Temporary resection of bone flap from cranium. (From Es-march, after Wagner.)

the head, just posterior to the Rolandic fissure on the right side. Had great pain, but no wound of the scalp; severe headache which has never entirely disappeared. Vision in right eye gradually failed, and could not see; totally blind in right eye. Deafness of right ear began almost immediately after the accident and continued. There was no motor paralysis, no loss of sense of taste or of smell. Vision and

¹ JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Dec. 22, 1894.

hearing apparently normal on the left side. Ophthalmoscopic examination by Prof. J. Elliott Colburn: "O. S. normal, O. D. slightly vascular; no evidences of past or present neuritis. Must have pressure in region of optic commissure on right side. Diagnosis: Pressure from injury in region of fissure of Rolando."

I trephined the patient November 15 at the Benedictine Convent, Dr. E. J. Senn assisting and Dr. J. H. Smith present. Temporary resection of cranial wall with chisel. Dura



Fig. 2.—Double section of Wagner. (After Chipault.)

mater healthy; incised it and passed a silver wire loop downward and forward toward optic commissure. On withdrawal a firm round coagulum about three centimeters in length was found attached to the wire. A second time the wire was passed, but this time the result was negative. The wire was then gently passed in a posterior direction following the posterior surface of the petrous portion of the temporal bone, without result. The bone was replaced after suture

of dura, and the wound was then closed, three silkworm gut threads being left in the angle of the wound for drainage. The wound was dressed in the usual manner. The patient rallied well after the operation, but on the second day there were convulsions with total loss of consciousness and spasmodic contraction of the muscles of the left arm and hand. I inferred there must have been an oozing causing pressure, and as I was confined to my room with a severe cold, Dr. C. P. Wert-

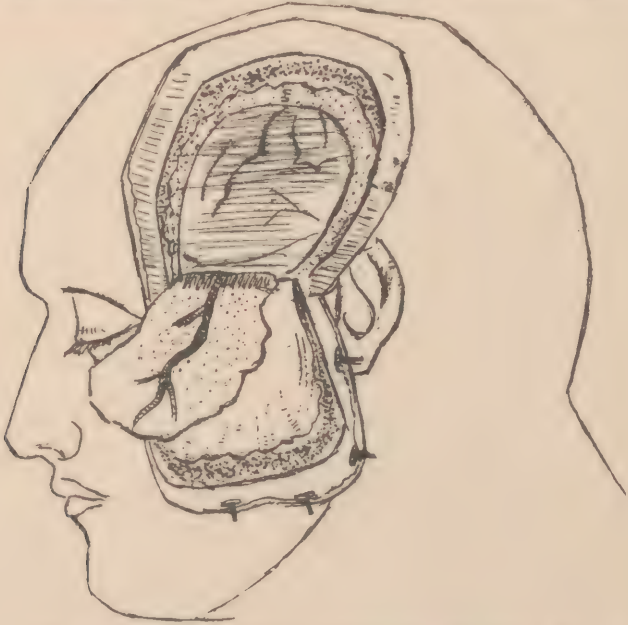


Fig. 3.—Temporary resection of cranial wall with dural flap. (After Chipault.)

enbaker, of the Marine-Hospital Service, was requested to reopen the wound. He did so, and removed coagula pressing upon the dura. The wound was again closed after careful cleansing, and the patient recovered without untoward symptom. The temperature remained normal.

June 18, 1894, Professor Colburn again examined the eyes

and found the field normal in both eyes. Vision had been restored from the date of the operation. Nov. 18, 1894, I again saw the patient and found her with normal hearing and vision, and in good health.

In regard to the technique of trephining, it is proper to add a few words in explanation. For the last three years, I have used the "corner" chisel and mallet. I think favorably of the circular saw propelled by the dental engine, but I have not used it. Before becoming acquainted with the merits of the temporary resections, I used the large conical trephine, preserved the bone button with great care during the operation, keeping it in a warm towel previously wrung out of a hot antiseptic solution, and replaced it afterwards, but with the method introduced by Wagner, we need no longer fear non-union of the bony flap when replaced, and here as elsewhere, the most rigid asepsis must be maintained during the operation and at the subsequent dressings.

A CASE OF HYPERTROPHY OF MAMMARY GLANDS.¹

COMBINED WEIGHT FIFTY-TWO POUNDS—EXCISION—
RECOVERY.

July 19, 1894, Mrs. P., of Lancaster, Wis., was brought to the Presbyterian Hospital by her physician, Dr. F. E. Strong, of Lancaster, who gave me the following history:

“Mrs. P., age 32, had ordinarily good health up to the time of her marriage eight years ago. Began to menstruate at usual time. At 12 years of age had scarlet fever, and when 16 began to have slight irregular pains in both mammary glands. During her first pregnancy when six months advanced, the breasts began to enlarge and became painful. At this time she was very sick with malarial fever and remained so until eight months, when twins were born. Two weeks afterward breasts had resumed their natural size. During second pregnancy they began to enlarge at second month, but did not attain their former size. The child was born at term and nursed from the nipple, which the first did not do. In fall of 1893, just before her third pregnancy, the breasts began to enlarge a third time. She grew weak and an abortion followed at five months; the breasts did not diminish in size, but increased until she came to the hospital. The right breast measured

¹ JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, March 9, 1895.

forty-two inches in circumference at the nipple and the left thirty-nine. The right breast measured thirty inches around the pedicle and the left twenty-seven. The right breast measured fourteen inches from the nipple to the pedicle, and the left thirteen and one-half. She was unable to walk without assistance owing to the great weight and bulk of the breasts. The drawings herewith from a photograph, show the appearance of the breasts.

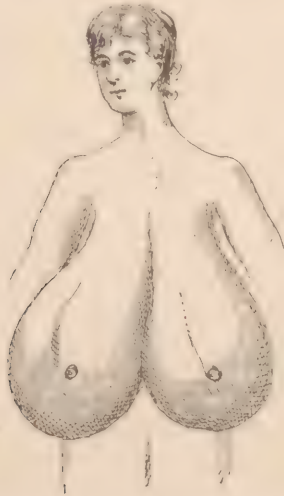


FIG. 1.—Hypertrophy of Mammary Glands. Hamilton's case, 1894.

The enormously enlarged veins, the great size of the tumor and the history of former cases, made operation an object of some solicitude on account of the danger of hemorrhage. The first operation was done in the clinical amphitheater of Rush Medical College, July 21, 1894. I had a couple of long skewer pins made and thrust them through the pedicle. I then

cast a stout rubber cord between the pins and the chest, and drew them tightly but separately from each side. The breast was then removed by cutting two flaps of skin from the tumor, reflecting them respectively upward and downward, and enucleating the gland; the vessels were secured without difficulty. The hemorrhage was considerable, but it was almost entirely from the blood remaining in the gland, as the constriction had prevented arterial hemorrhage. The great bulk of the gland prevented the emptying of the blood vessels by compression, although some-



FIG. 2.—Hypertrophy of Mammary Glands. Hamilton's case, 1894.

thing was done in that direction by elevating the breast while the patient was in recumbent position. The measurement after removal was thirty-nine and one-half inches in circumference, from nipple to pedicle fourteen inches, and around pedicle thirty inches. Its weight was twenty-seven and one-half pounds. On section, the tissues were a grayish-white color, normal in structure.

Dr F. W. Miller, Interne at the Presbyterian

Hospital, made the microscopic examination, and the following report:

"The histologic elements may be considered under two headings, viz.:

"1. Parenchyma elements which are seen as acini and ducts, sometimes greatly compressed so as not to be easily distinguishable. In some the epithelial lining is distinctly columnar, and the lumen of the duct oblong, or large and spherical; in others the epithelial lining, consisting of two layers is made up of small pavement epithelial cells.

"2. The connective tissue elements are in excess of the normal proportion, and consist of highly refractile non-nucleated fiber bundles, taking deep stain with eosin; these fibers interlace in all directions; fat cells are abundant but vessels lacking. Diagnosis: hypertrophy of mammary glands."

There was considerable shock; the patient was well stimulated, external heat applied and the foot of the bed elevated; she rallied and the wound healed by primary union. On August 11, the wound having healed and the patient being in good condition, the left breast was similarly removed in my clinic at Rush Medical College. The breast had slightly increased in size, contrary to the statement sometimes made that when one breast is removed the other diminishes in size. The operation was attended by no unusual incident and recovery was prompt.

This diffuse form of hypertrophy of the mammary gland is extremely rare. Williams² states that "while 2,422 cases of mammary neoplasms came consecutively under treatment at Middlesex, University

² A monograph on diseases of the breast, London, 1894, p. 82.

College, Bartholomew's and St. Thomas Hospitals, during a period of from sixteen to twenty-one years, only six cases of diffuse hypertrophy were seen in the same period." The same author has collected notes of amputations done on sixteen patients, and only one death. "This patient died twenty-two hours after the operation from collapse from excessive hemorrhage during the proceeding."



Appearance April, 1895.

M. Pierre Delbet³ says: "Known since the time of Galen, hypertrophy of the breasts is very rare. Velpeau did not observe more than five cases; in 1880 Billroth esteemed it a privilege to have encountered two examples; Labarraque, the author of altogether the best work on this subject, was not able to collect more than thirty-three observations,

³ *Traité de Chirurgie par Duplay et Reclus*, t. vi, Art. Mamelle, p. 130.

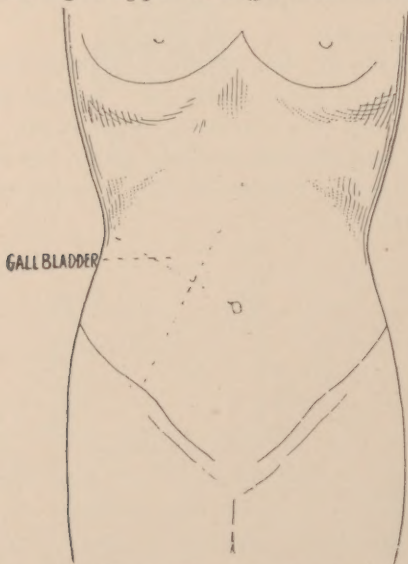
to which it is necessary to add the more recent cases of Benoit and Monteils (1877), of Monod (1881), Klippel (1887), Billroth (two cases), Barton, Richter, Schussler and Lihotsky."

In conclusion, it is to be mentioned that true hypertrophy (uncomplicated) is usually double, while the cases of hypertrophy of the male breast, described by Leudet (1886) and Blomfield (1886) as an occasional complication of phthisis pulmonalis were unilateral.

Since writing the foregoing I have a letter from Dr. Strong, in which he says: "At the time of the operation she was four months pregnant. The gestation was undisturbed, and she had a ten pound child Dec. 24, 1894. Photo showing present condition is enclosed."

THE NORMAL SITUATION OF THE GALL BLADDER IN MALES.¹

To find the gall bladder, draw a line from the anterior superior spinous process of the ilium to the center of the xiphoid appendix. Intersect this with a line from the umbilicus to the tenth costo-cartilaginous junction. In the right upper triangle near the apex, but



nearer the right oblique line, the fundus of gall cyst will be found. A needle thrust through the abdomen at the point indicated, will usually transfix the gall bladder. The position of the gall bladder varies with the changes in the position of the liver; in enlargements it is pushed downward, and in some cases deflected to the right.

¹ JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, April 13, 1895.

